MEDICAL BENEFITS UNDER WORKMEN'S COMPENSATION. II

The cost of medical aid evidently depends not only upon the amount required but also upon the cost per unit, and, therefore, upon the method of organization of medical aid. Efforts toward cheapening medical service for the poorer classes are not unknown in this country. Witness the growth of contract medical service for industrial establishments, and also the development of the so-called lodge doctor. In the related field of social insurance—namely, sickness insurance—very material cheapening of the unit of medical service has been accomplished in Europe through thorough organization.[1] There are few evidences in the American compensation laws of any carefully thought-out plans of organization, but efforts to limit cost are many, mainly through one or both of the following methods: (*a*) restriction of the choice of physicians and (*b*) limitation upon the cost of the physician's service as distinct from restriction of the amount of medical service. Of these two methods, the latter represents a more recent development and is found as yet in comparatively few acts.

By implication the restriction of the injured employee's right of the selection of a physician may be read into almost every one of the American acts, though the exact language of the law by which this is accomplished is subject to numberless variations. The statement was previously made that the experience of Continental Europe did not exercise any influence over American legislation. This is not quite accurate. The early discussion of compensation contains many references to the "dangers" of social insurance. The works of Friedensburg[2] and Bernhard[3] achieved for a time a

[1] See I. G. Gibbon, *Medical Benefit in Germany and Denmark;* also I. M. Rubinow, *Standards of Health Insurance,* New York, 1916.

[2] *The Practical Results of Workingmen's Insurance in Germany,* by Dr. Ferdinand Friedensburg, translated from the German by L. H. Gray, Ph.D. (New York), 1914.

[3] *Undesirable Results of German Social Insurance,* by Professor Ludwig Bernhard, translated by H. G. Villard, Workmen's Compensation Publicity Bureau, New York, 1914.

popularity never possessed in their native land. The most extreme statements were made regarding the dangers of malingering,[1] and a large share of responsibility was placed upon the medical profession for their "doctor's graft" and encouragement of fraud and malingering. For illustrations of the last feature, the experience of France was largely drawn upon,[2] where the abuse of the free choice of physician granted by the law to the injured has become a matter of live discussion.

The French compensation act specifically states that "the injured person may always choose for himself his physician and his pharmacist" (Act of April 8, 1898, Art. 4, amended by the Act of March 31, 1905). The danger of excessive cost of this arrangement is met by a strict adherence to a "fee schedule," which regulates the physician's charges. As to the efficiency of this method, opinions in France differ sharply.

Similar specific provisions granting freedom of choice of physicians to the injured workmen are found in a few other European acts. Thus the Belgian act provides that "the injured person shall have the choice of a physician and druggist," except where "the employer has established a medical and pharmaceutical service entirely at his own cost," or "when the parties have agreed by special stipulation in the labor contract to have the service established by the employer" (Act of December 24, 1903, Art. 5).[3]

In most other countries, however, medical benefits are largely administered in connection with the compulsory sickness insurance, and the same rules apply to accidents as to sickness; the rules as to the freedom of choice of physician by the patient being subject to very many local variations, from treatment administered by

[1] T. P. Sherman, *Notes on Malingering Under Workmen's Compensation Laws* (pamphlet). Among the provisions of the law which promote malingering is mentioned: "a provision allowing an injured workman to select his own physician and obligating his employer to pay therefor." Such a practice, says Mr. Sherman, "simply breeds malingering and is absolutely inexcusable" (p. 14).

[2] See *Workmen's Insurance in France, Holland, and Switzerland*, a series of letters by Harold G. Villard, (reprinted largely from the *New York Evening Post*, 1913).

[3] For a convenient reference to most foreign compensation acts, see *Twenty-fourth Annual Report of the* (United States) *Commissioner of Labor*, II (Washington, 1911), Appendix, pp. 2435–2726.

special medical officers of the Sickness Insurance Fund down to full liberty of choice among a large number of physicians registered with the Sickness Insurance Fund.[1] Finally, in some countries, as, for instance, in Spain, the right of the employer to select the physician is definitely stated. It is significant that not in a single American compensation act is the injured employee specifically granted the right of selecting his physician,[2] though in some acts the language is so indistinct as to leave the question open.

Many acts simply specify the obligation of the employer to furnish "medical and hospital *services* and *medicines*," etc., thus creating a strong presumption that medical aid must be furnished *in kind*, which presupposes the employer's right to select the physician, hospital, etc. (Hawaii, Massachusetts [old act], Maine, Michigan, Rhode Island, Vermont). Several other states strengthen this formula by the phrase "unless the employee refuses to allow them to be furnished by the employer" (New Jersey, Louisiana, Nebraska, Pennsylvania), under which circumstances the employer's obligation to furnish medical aid is at an end. The Illinois act makes the distinction very clear by the statement that the employee may select his own physician or hospital at his own expense. This formula is also followed in the Canal Zone regulations.

The need of medical aid is usually urgent, especially so in accidental injuries. The right to receive medical aid in kind is not a right that can conveniently be satisfied by delayed litigation. The obvious question must arise as to the rights of the injured workman in case the employer fails to comply with the requirements of the law. Where the early laws prevail, which have failed to provide for these contingencies, courts and industrial commissions are called upon to lay down rules of action. But in the recent acts some provision is made.

The California act was perhaps the first to state definitely that "in case of his [the employer's] neglect or refusal seasonably to do

[1] See I. G. Gibbon, *loc. cit.*

[2] A recent amendment in Massachusetts is a notable exception. See "Supplementary Note" concerning legislation n 1917.

so, the employer is to be liable for the reasonable expense incurred by or on behalf of the employee in providing the same." Substantially the same formula is found in the acts of Connecticut, Maryland, Minnesota, Indiana, Nevada, New York, Oklahoma, Texas, Wisconsin, Pennsylvania. The legal problem as to what constitutes the failure to provide medical aid is foreseen in a few acts. The Iowa act contains the phrase "if so requested by the workman, or anyone for him," and the Pennsylvania act requires application for medical aid to be made to the employer—phrases which literally interpreted and enforced may under certain circumstances furnish to the employer a loophole for escaping the cost of medical aid. That other reasons besides the employer's or insurer's failure to provide medical aid may justify the selection of the physician by the injured or by his kin is admitted in only one act—the Massachusetts Amendment of 1914 (Acts of 1914, chap. 708, sec. 1), which states that "where in a *case of emergency or for other justifiable cause* [italics are the writers] a physician other than the one provided by the association [insurer] is called in to treat the injured employee, the reasonable cost of his services shall be paid."

In several states in which the mining industry predominates, hospital funds have achieved considerable development. The cost of these is sometimes borne partly by employer and by employee; more frequently, entirely by a tax upon the latter; not infrequently the income from that tax exceeds the cost of the medical and hospital service provided for, and yields a profit to the employer. The acts of Colorado, Montana, and the defunct act of Kentucky specifically authorize the retention of these existing arrangements in lieu of the medical benefit provided by the compensation act. This retention of a well-organized system of medical aid would be very desirable, if it were accompanied by specific provisions that the cost should be borne by the employer, as is the intent of compensation, and by some requirements as to supervision over the quality of this medical organization. In the absence of such conditions the burden is partly shifted upon the wageworkers themselves. Specific mention of the money cost of medical aid, etc. (instead of the service

in kind) is found in two states only—those of Ohio and West Virginia, both having systems of monopolistic state insurance.[1] The authorities administering the state insurance funds are required to "disburse and pay from the fund for such injuries such amounts for medical, nurse, and hospital services and medicines as it may deem proper" (Ohio formula, only slightly modified in the West Virginia act). In neither of these two acts is any authority specifically given to provide for a systematic organization of medical aid. Such an organization is authorized, though not required, by the Oregon act, which permits the administrative commission to "provide . . . . medical and surgical attendance . . . . and to contract therefor in its discretion . . . . or" "authorize employers to furnish or provide at the expense of the Commission . . . . such . . . . attendance."

In the face of this bewildering variety of provisions, requirements, and qualifying conditions certain tendencies manifest themselves in the acts collectively, and still more in their application as expressed in the action of employers and insurers and rules and decisions of commissions and courts. These tendencies are mainly two: (1) In the opinion of the legislators, it seems desirable that the employer or insurer have the choice of the physician. (2) It is inevitable, nevertheless, that in many cases that right be left to the injured, and the legal requirement be met in money and not in kind.

The entire problem of choice of physician has been so thoroughly discussed in Europe that the arguments for and against the employer's retaining the right have clearly crystallized, and they are equally applicable to American conditions: On one hand, it is claimed that:

1. The employer or the insurer is better able to select a competent physician.[2]

[1] At least in theory both acts permit self-insurance, under which employers may obtain authority to remain outside of the state insurance system. Most of these "self-insured" employers in West Virginia carry insurance with private casualty companies. The same situation obtained in Ohio until abolished by a special act, prohibiting casualty companies from reinsuring "self-insureds."

[2] "Inasmuch as the selection of the physician is wholly in the hands of the employer or his insurance carrier, the risk of falling into the hands of a quack is minimized" (California Industrial Accident Board, *First Report*, 1913, p. 13).

2. The employer or the insurer, being required to bear the cost of medical aid, should be given the opportunity to reduce that cost by making the best terms possible with the physician.

3. The employer (or insurer for the same) is entitled to retain supervision over the injured's condition, which is most easily accomplished by leaving the choice of physician to him.

4. The physician selected by the injured employee may be tempted to promote malingering and prolong unnecessary treatment, thus increasing cost of compensation in a double way.

On the other hand:

1. The relation between physician and patient is personal, based upon confidence, and best results will be obtained by the injured (or his kin) selecting the physician.

2. The employer's physician may be unduly influenced to restrict the period of disability and require premature return to work, so as to reduce the cost of compensation.

3. The employer's physician combines the duty of a medical attendant with those of a supervising official, devoted to the interests of the opposite party. This creates a relation not conducive to the best professional results.

4. (This perhaps is less an outspoken argument than a silent cause of effort in favor of preserving the injured workman's right to choice of his physician.) It is claimed that the shifting of this right to the employer will concentrate the entire medical and surgical work in connection with accidents in the hands of a few physicians, possibly on a contract basis, and deprive the medical profession at large of a substantial portion of their practice.

Common fairness requires the admission that there is a certain amount of weight and equity in every one of these arguments on either side. The real issue is as to their comparative importance in the final selection of one uniform system, if such uniformity is possible.

Needless to say, no such uniformity exists. While almost all the acts, by direct legal statement or by inference, give to the employer the right of selection, the necessity for exception in certain cases has become obvious. The employer may fail to comply promptly with the legal requirement, and the injured's private

physician must be called in. We have already indicated that in several acts this special contingency is provided for. Opinions as to what is prompt service will differ. Anxiety of the injured workman or among the members of his family may cause application to a physician before the employer's physician arrives. Shall change in medical attendants be insisted upon? In regard to this very practical problem numerous decisions by various boards and commissions have been made, usually in favor of the injured workman. The California Board ruled[1] that a request for treatment by an employee is unnecessary, that knowledge of injury is sufficient, and failure to provide aid charges the employer with the reasonable expense incurred by the employee. A similar decision was rendered by the Connecticut commissioners, who further said that a foreman's offer to dress the wound does not constitute a legal offer of medical aid.[2] The question of neglect was considered in a California case in which the insurance company's physician called on the injured on Tuesday, and not again until Friday. Meanwhile another physician was called in by the injured. It was ruled that the insurer is not justified in delaying medical treatment, that the interval between Tuesday and Friday constituted such a delay, and the insurer was ordered to pay the bill of the private physician.[3] On the other hand, in a case where the injured employed his own physician, and when the insurance company sent its physician four days after the injury refused his services, the bill of the attending physician was ordered paid only up to the time of the offer of medical aid.[4] In this case it was not considered unreasonable to ask the injured to change physicians. Such a change, according to the ruling of the same board, must be made, if at all, by the time it is necessary to change the first-aid dressing to a permanent course of treatment.[5] This, however, is modified by a previous ruling to the

[1] *Edward Frother* v. *Cornelius Griffin*, April 10, 1915; also *Annie E. Gardiner* v. *State of California Printing Office*.

[2] *William Gregory* v. *Merril Company* (Conn., October 5, 1914).

[3] *S. Jameson* v. *W. E. Bush and Maryland Casualty Company* (Cal., November 16, 1914).

[4] *C. Robertson* v. *Panama Trust Co. and New England Casualty Co.* (Cal., September 28, 1914).

[5] *L. B. Beer* v. *E. Hotchkiss and Royal Indemnity Co.* (Cal., January 27, 1915).

effect that, if the injured employee's physician be forced at the beginning of the treatment to perform a "capital operation, it is improper to require him to change his physician immediately after that, and the physician selected by the employee is entitled to full payment."[1] If the employer agree that the injured workman select his own physician, the insurance company cannot waive liability for the medical bill by sending its own physician.[2]

Again, what constitutes a bona fide offer to furnish medical attendance? Posting a printed notice with the names of physicians does not in Massachusetts, especially when the injured is an illiterate foreigner who does not understand English.[3] Where, however, a bona fide offer of medical services was made by the employer or the insurer and was arbitrarily refused by the injured because of a preference for a physician of his own choice, many boards have denied the claim for payment of medical bills.[4]

The leaning of many industrial boards toward free choice of the physician is significant. As stated by the chairman of the Massachusetts Industrial Accident Board, though "under this act neither the injured man nor the employer has any right whatever to select his own physician; that is the exclusive duty and right of the insurance company" (the Massachusetts act being a compulsory insurance act), nevertheless, "by the co-operation of the Industrial Accident Board, and the various insurance companies insuring employers throughout the Commonwealth, we have a working agreement with them that has not the force nor the operation of the law. They have allowed injured employees to select their own physicians and, so far as I know, in the great majority of cases that working agreement is being carried out in good faith."[5] The Massachusetts Board went even farther and in its first report

[1] *Fred Matteoni* v. *Roberts and Clark and Pacific Coast Casualty Co.* (Cal., September 23, 1914).

[2] *L. B. Taylor* v. *Kissel Kar Branch and Massachusetts Bonding & Insurance Co.* (Cal., September 3, 1914).

[3] *Panasunk* v. *American Mutual Liability & Insurance Co.* before the Supreme Judicial Court of Massachusetts, Suffolk (105 Northwestern, 368, May 21, 1914).

[4] *City of Milwaukee* v. *Miller*, 144 Northwestern, 188 (Wis., October 28, 1913).

[5] Massachusetts Industrial Accident Board, *Bulletin No. 4*, April, 1913. "Medical Services under the Workmen's Compensation Act," pp. 5–6.

specifically recommended the amendment of the act "so as to reserve to the injured employee his right to engage his own physician is he so desires."[1] While the legislature did not agree to go so far, probably out of fear of the organized employers' interests, provision was made for the payment of the injured workman's private physician, when called in "in case of emergency or for other justifiable cause," subject to the approval of the Board and provided the charge for services is reasonable.[2] How broadly this clause concerning "justifiable cause" is interpreted is indicated by the statement of the Board early in 1913[3] that it "will approve reasonable bills where services were rendered by a physician selected either by the employee or employer," because of sufficient reasons growing out of the nature of the injury, personal dislike of the doctor, or upon other grounds.

Again, in California the Industrial Accident Commission permits free choice of physician, as far as this lies within its jurisdiction—namely, "in its administration of the State Compensation Insurance Fund it has deemed it expedient to accept the services of any licensed practitioner of medicine and surgery unless his services are known to be without value. The Commission does not believe that the fund, as a state organization, may exact the services of any certain group of doctors.[4] There is a very satisfactory understanding between the medical profession generally and the Industrial Accident Commission."

Finally, in Ohio the matter has been very definitely decided in favor of absolute freedom of the employee's choice. In the Commission's opinion "the law implied specifically that all awards were to be paid to the injured workman. This impliedly respects the right of the workingman to select his attending physician."[5] Accordingly the first of "the rules of the Industrial Commission of Ohio, governing procedure with respect to claims for medical

[1] Massachusetts Industrial Accident Board, *First Annual Report*, 1912–13, p. 41.

[2] Acts of 1914, chap. 708, sec. 1.

[3] Massachusetts Industrial Accident Board, *Bulletin No. 2* (January 1913), p. 11.

[4] *California Industrial Accident Commission Report*, January 1, 1913—June 30, 1914, p. 17.

[5] *Bulletin of the Industrial Commission of Ohio*, I (November 5, October, 1914), 21.

expenses against the State Insurance Fund," adopted October 1, 1914 reads: "Each injured employee shall have the right to select any physician he may desire to treat his injuries."[1]

Indirectly the same situation, or a tendency in that direction, may be observed in other states. How else can the numerous provisions concerning regulation of medical fees by the administrative authorities (to be referred to presently) be explained? For if the employer or the insurance carrier who is to pay for the medical aid were to have the exclusive right to select the physician, then he would be in a position to agree in advance as to proper medical charge, and disputes should not arise. The situation evidently is different when the person employing the physician and the person responsible for the fee are different parties. How much uncertainty there is in the law on this subject the following language of the Rhode Island act aptly illustrates. "Section 5. During the first two weeks after the injury the employer shall furnish medical and hospital services and medicines when they are needed, the amount of the charge for such services to be fixed, in case of the failure of the employer and employee to agree, by the superior court."[2]

The reference to "services" would indicate that medical aid be furnished in kind, the employer selecting the physician, but the provision for disagreements between employer and employee presupposes that the employer makes money payments to the employee, the latter hiring his own medical attendant.

As a matter of fact, the situation lies not so much in the hands of the employer as in the control of the insurance carriers. Whether there is compulsory insurance or not, the vast majority of employers carry compensation insurance. The insurance carrier meets the medical bill. Practices of different companies differ, and even the same company may in certain localities make definite arrangements with certain physicians and in other localities let the cases be handled in the way of private practice. In this way the situation is somewhat modified. Needless to say, the company's representative cannot be on the spot when an accident occurs. Commissions and courts have shown a disinclination to enforce a change of physicians.

[1] *Ibid.*, p. 31.

[2] The Maine act contains almost identically the same provision.

Serious cases are taken to hospitals, making such change impossible. The practical question for the insurance company is whether it should insist upon the employer's right of choice or leave it to the employee, neither of the two being financially responsible for the contract they might make. In this aspect of the situation there is not much enthusiasm for the employer's right of choice, because the rich man's doctor is likely to be also the more expensive doctor.[1]

This practical development of the injured employee's freedom of choice has emphasized, in the opinion of the insurers, the danger of excessive medical charges. Several compensation acts, especially the later ones, make special provision against it. Of course the money limits to the amount of medical aid to be furnished, especially when found side by side with the time limits, are really due to the same consideration. The assumption in the mind of the legislators is that the money limits will not further cut down the *amount of medical aid*, but the *size of the medical bill*.[2] Again, this principle might result in glaring injustice if the employer and not the employee chooses the physician. Supposing the physician so selected is a high-priced one and absorbs the maximum fee allowed by the law before the time limit is expired. Is the injured person to be deprived of his legal share of medical aid because the employer wouldn't or couldn't strike as good a bargain with the doctor as he might have himself? As far as the writer knows, there have been no decisions on this subject, though a very interesting legal point is involved.

A good many acts (especially those more recently enacted) endeavor to keep down the size of medical bills by definite provisions. Massachusetts, California, and Texas provide that the employer or insurer is only responsible for the *reasonable cost* of

[1] In reply to an inquiry from the joint committee of the A. F. of L. and N. C. F. one casualty company writes: "This company has never favored the doctor's contract whereby a company furnishes a doctor for every distinctive case. It uniformly permitted the employer or the injured employee to select his own doctor and finds that has proven the most satisfactory way to handle the matter." (*A. F. of L. and N. C. F. Report*, etc., p. 32).

[2] Practical insurance men, however, have often doubted the wisdom of these money limits, fearing these might have a directly opposite effect of establishing a "normal standard," to which doctors' fees may be adjusted upward.

medical aid. In Maryland, New York, Oklahoma, Oregon, and Wisconsin the charges for medical treatment are subject to control by the administrative commission. In Maine the commission fixes the amount in case of disagreement between employer and employee, and in Minnesota and Rhode Island the same power, in the absence of a commission, is given to the courts; in West Virginia and Ohio (State Insurance acts) the Commission itself determines the amount of medical fees due for the treatment, while in a number of states (Connecticut, Hawaii, Maryland, Minnesota, New York, Oklahoma, and Vermont) the obligations of the employer or employee are "limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living, when such treatment is paid for by the injured person."[1]

In compliance with this tendency commissions of several states (New York, Ohio, California, etc.) have adopted and published so-called "medical-fee schedules," definite standards of payment for certain injuries or certain services,[2] which are either compulsory or only suggestive in character.

These schedules are too extensive to be printed here in full. The amounts allowed for certain operations are very much smaller than the prosperous American middle class is wont to pay, even smaller than the poorer American is forced to pay if he has moral scruples or aesthetic objections against becoming an object of medical charity. Few self-respecting surgeons of any standing will agree to perform a laparotomy (operation necessitating opening of abdominal cavity) for $50, or amputate a leg for $25. This fee, moreover, is inclusive of all after-treatment, according to the New York schedule, while in Ohio separate fees are allowed for the latter.

[1] No references to the cost of medical aid are contained in the acts of the Canal Zone, Colorado, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Montana, Nebraska, New Jersey.

[2] For the Ohio schedule or "Fee Bill," see *Ohio Industrial Commission Bulletin*, October 1914, pp. 24–25. The New York "Fee Bill" is printed in the same *Bulletin*, p. 29; see also *California Industrial Accident Commission Report*, January 1, 1913—June 30, 1914, p. 17. A very interesting comparison of the medical-fee bills proposed in the states of New York, California, Oregon, Ohio, and West Virginia is to be found in the *American Medical Association Bulletin*, Vol. X (May 15, 1915), No. 5, pp. 384–87. It is interesting to observe that there is much more uniformity between these different fee schedules than exists between scales of compensation of the injured workmen.

Such fee schedules are operative in few states. Their enforcement requires energetic action on the part of the Commission, conferences with the medical profession, and various compromises. In Massachusetts the acceptance of the principle of moderate fees was accomplished by the extra legal promise to grant the injured workman the right of full choice of physician. In Ohio there was said to be an implied threat by the Commission of establishing a state medical service. And of course in those states where specific authority was conferred upon the Commission to pass upon the reasonableness of medical bills this contains ample power to enforce a fee bill.

Wherever accepted, the fee bills did not fail to call forth energetic protests from the medical profession.[1] Even when the fee bills were worked out in consultation with representatives from medical organizations individual members of the profession were frequently dissatisfied. The medical profession was inclined to resent the implication that it was not a true judge of the reasonableness of the medical bill. In one such criticism, quoted by the Ohio Commission, a president of a large medical society in Ohio states that in pronouncing doctors' bills to be exorbitant the Commission adds insult to injury, "that never in the history of the world was there a more autocratic law . . . . and its application is an insult to the medical profession," and that "the Commission's action places the physician's fees upon a lower level than has ever been known before."[2]

The Commission denies that this represents the general attitude of the medical profession. Yet the very issue of the *Bulletin* quoted, of some 40,000 words, addressed to the medical profession and containing a very urgent plea in defense of the Commission's

[1] The Commission has approved a fee schedule which is considerably lower than the average fee charged for similar work in private practice. This at first met with very considerable opposition on the part of the profession. . . . . The matter was taken up before the Medical Society of the State of California in April 1914. . . . . The fee schedule was adopted. Since that time the Commission . . . . has secured an understanding . . . . and the great majority of the County Medical Society units have subscribed to the arrangements (California Industrial Accident Commission, *First Report*, 1914, p. 18).

[2] *Ohio Industrial Commission Bulletin*, Vol. I (November 5, October, 1914).

attitude to the medical profession, the effort to set forth various evidences in support of the claim that the Ohio physicians receive more money for their compensation work than those of any other state—all this is eloquent evidence that, notwithstanding all the supposed liberality of the Ohio Commission, the medical profession of the state was not easily satisfied. In New York the fee bill prepared by insurance companies was accepted by a special compensation committee of the state Medical Society and by the state Compensation Commission as a fair estimate of proper fees. It was agreed that for one year it would present a fair basis for trial. It had no binding force upon any physician who did not individually sign an agreement with an insurance company. Nevertheless, it very soon became evident that it was objectionable to the majority of the profession, because the insurance companies interpreted it "a maximum fee bill, not a minimum fee bill" (*Sic !*) and it was repudiated by the Medical Society of the state in the spring of 1915.[1] Undoubtedly enough physicians may be found willing to undertake the work at the rates indicated, because the range of variations in the rate of remuneration for medical work is very great, but it is probable that the more expert practitioners in private practice do not as a rule court compensation work at the "fee-bill" rate.

The size and importance of the medical profession and the great importance of the physician's part in any plan of health insurance make the problem of the medical bill a social problem, irrespective of the business aspects as far as the medical profession itself is concerned.

In arguing in favor of a reduced and more or less uniform scale of compensation for the physician's work, many commissions pointed out that the basis of payment in private practice among the middle class is inapplicable. In the language of the Ohio Commission, the medical fees must be considered "on an industrial accident basis."[2] The legal formula for the same point of view is "such charges as prevail in the same community for similar treatment of injured persons of a like standard of living, when such

[1] *American Medical Association Bulletin*, May 15, 1915, p. 388.

[2] *Ohio Industrial Commission Bulletin*, October, 1914, p. 15.

treatment is paid for by the injured person." Almost invariably, unless paid for by the employer or the casualty company under liability conditions, the injured person was treated in the hospital as a charity patient. This fact—that physicians were forced to give a great deal of service gratuitously—is quoted by the various commissions in defence of a moderate fee under compensation conditions.[1] Of course the standards of medical fees adopted appear so small largely because the comparison is made with medical fees in middle-class private practice, rather than with the income that could be derived directly from the wageworkers for surgical work. The nominally liberal standards of fees for surgical and expert special work in this country obscure the fact that the average income of the medical profession is a very modest one. The number of large incomes in the profession is small. The loss of time because of competitive conditions, the infrequency of the fees, and the necessity of performing a large amount of labor gratuitously, either for the sake of experience or for its advertising value, are factors which substantially depress the average income of the physician. The few exceptional incomes have blinded many members of the medical profession to the fact that for the majority of its membership the old conditions of private practice among the workingmen are of doubtful economic value. Proper organization would permit the furnishing of very expert service at a very much lower unit cost.

Economy of cost, moreover, is not the only consideration. The quality of service administered at present by physicians of all degrees of efficiency is by far not as high as it ought to be. One evidence of it may be found in the frequency of infections, to which many state commissions have called attention. Says the California Industrial Accident Commission in an early report: "A glance at the list of infections would indicate that either the employee is negligent or else does not receive proper care. Several amputations have been made because of improper care, and they have been always proven more expensive in the long run than if the very best and most expensive aid had been secured at the

[1] Medical men can the more readily co-operate with us because, whereas they have heretofore been required to treat many cases gratuitously, hereafter they will be paid in all cases, but upon a somewhat modified schedule of charges (California Industrial Accident Board, *First Report*, 1913, p. 13).

beginning. There are two cases on record where men died as the result of a sliver wound resulting in infection."[1]

The Wisconsin Commission found the matter of sufficient importance to issue a special bulletin devoted to it.[2] The following data quoted in the *Bulletin* indicate the serious nature of the problem.

> Of the total number of accidents reported from September 1, 1911, to September, 1913, 721, or 4.8 per cent, resulted in infection of the injured members. The accidents themselves were, with few exceptions, trivial and would have resulted in but very few days of disability each if properly treated. As it was, over 12,500 working days were lost, or an average of 17 days per case. In 5 cases the injury became so serious that the patient died. In 4 other cases the injured members had to be amputated to save the patient's life. Another case resulted in permanent stiffness of the injured person's entire body.

While a certain number of infections may have been unavoidable, it is hard to escape the suspicion that medical aid, administered, as it is, in a haphazard fashion, was far from being always satisfactory. Neither the injured employee nor the employer always appreciates the necessity for prompt and efficient medical aid, and the medical service obtained is not always of the best. As stated bluntly by the California Commission, "either the employee is negligent or else he does not receive proper care."[3] Of course the situation must be still worse if no medical aid is given.

In view of the total absence of the medical benefit in the Washington act, we are not surprised to read in one of the reports of the Industrial Insurance Department of that state: "We have a great many bad results, even partial permanent disabilities and some deaths as a result of neglect by the claimant not giving proper care to some trivial injury."[4] In one year in that one state there were recorded 650 cases of infection; the total time loss in these cases was over 13,500 days, and the total cost was $21,128.[5]

[1] *California Industrial Accident Commission Report*, 1913–14, p. 66.

[2] *Wisconsin Bulletin of the Industrial Commission*, Vol. 2m (November 11, 1913), "Infections and Their Prevention."

[3] *California Report*, 1914, p. 66.

[4] *Second Annual Report of the Washington Industrial Insurance Department*, 1913, p. 63.

[5] Industrial Insurance Department, *Second Annual Report*, 1913, p. 52.

Infections, especially if delayed, arising while medical treatment is being given, may serve in some cases as evidence of inefficient medical aid. But there may be other shortcomings of the system of medical aid, less obvious though equally grave in their results, and these deal with the important group of accidents resulting in permanent disability.

As is shown by the Standard Accident Table (or by any careful accident statistics, whether in this country or in Europe), the vast majority of accidents result in temporary disability only, and recovery is complete. Experience in Massachusetts shows that some 40 per cent of all accidents reported cause no loss of time or a loss of not over 1 day. Though these trivial accidents are eliminated in the writer's Standard Accident Table, some 94 per cent of the accidents in that table are of that temporary character only. But the gravest problems are created by the remaining 6 per cent, and, excepting the fatal accidents, amounting to about 1 per cent, the 5 per cent (4,875 per 100,000, according to the Standard Table) of cases of permanent disability. According to the New York act's scale of compensation, the average cost of a case of permanent disability would appear to be equal to about 124 weeks' wages, and that of a case of temporary disability to two-thirds of a week's wages, so that the cost of a case of permanent disability would be equal to that of 186 temporary cases, and the (comparatively) high cost of compensation insurance in the state of New York is due entirely to these cases.

Permanent disability is seldom absolute and total. In the Standard Accident Table only 133 cases per 100,000 accidents were assumed; and in the light of our short experience it would seem as if our strict interpretation of the term "total permanent disability"[1] would result in a still smaller number of cases of this character. In cases technically known as partial permanent disability the question of the quickest and most complete restitution of earning capacity becomes one of great economic and social importance.

These cases may be divided largely into two groups, both on surgical grounds and according to their method of treatment, in

[1] It is probable that this strict interpretation is due to a much more liberal scale of compensation for total permanent disability as compared with partial permanent disability.

American compensation acts: They are the so-called dismemberment cases—largely amputations and loss of an eye. The medical or rather surgical problems are rather simple. It is necessary that the amputation be made efficiently, that infection be avoided, that the stump be as serviceable as possible. There can be no question as to the desirability of artificial limbs. But beyond that, medical science can do little.

In most states, as is well known, these cases are compensated according to a table of specific benefits, for varying periods, according to the degree of dismemberment. This is explained on the theory of rehabilitation, on the underlying assumption that after a certain time the earning capacity of a worker losing fingers or a limb may be entirely re-established.

In certain cases this undoubtedly occurs. How far the theory and the methods of compensation based upon it are justifiable, as applied to all cases of dismemberments, is a broad problem which cannot be discussed here in connection with medical aid. The point we wish to emphasize here is that the process of rehabilitation after the loss of a part or after a clean and conservative amputation is a problem not of medicine or surgery, but of industrial education. There remain, however, that group of injuries technically known as permanent-partial-disability-not-dismemberment, a group not yet sufficiently understood in this country. A fracture may fail to unite properly for various reasons, which may result in a false union, making the limb almost useless; or it may unite improperly, leaving a permanent limitation of motion. It may include a joint, and the injury result in the stiffening of an important joint, as an elbow or knee. Even a stiffened finger joint may be an important matter to a workman. A compound comminuted fracture may heal after prolonged treatment, but leave considerable shortening due to the excision of some bone. Severe dislocations with lacerations of joint capsules and ligament often make the joint permanently weak; infections penetrate deeply and affect bones, resulting in excision of bone, which leaves the finger weak and with greatly impaired usefulness. Injuries to nerves may result in atrophies of certain joints of the body; severe general shocks may leave permanent nervous disorders. Mental disorders as a result of local

injuries to the head are not common, but not unknown. Internal injuries may lead to all kinds of prolonged ailing, etc.

It is evident that in all these conditions scientific medicine and surgery may accomplish a great deal. From the point of view of an industrial worker the treatment cannot stop when it very properly might in dealing with a more prosperous group. A slight limitation of the motion of the wrist, a slight weakening of the knee, is a matter of small concern to a professional or business man. To a wageworker it may mean the difference between economic self-dependence and pauperism. To remove the evil results of these injuries, they must first of all be clearly recognized by all concerned; and secondly, medical and surgical aid must be given generously, almost lavishly, and not sparingly and grudgingly; and it goes without saying that it must be the highest grade of expert medical aid. For, after all, isn't this the greatest service compensation can perform?

Much has been said about the preventive effect of compensation. It is claimed that, by placing a charge upon industry, it will create a strong economic motive for safety devices and efforts for prevention of accidents. "Merit rating" in compensation insurance[1] meets the charge of discrimination on the same ground of strengthening this economic motive. The well-known safety engineer and author of the Universal Analytic Schedule of Merit Rating, Mr. C. M. Hansen, created the slogan that "Compensation is a palliative; accident prevention is prophylaxis."[2]

A similar aphorism, introduced, I believe, by Mr. Walter Cowles, vice-president of the Travelers Insurance Company, reads: "An accident compensated is an apology; an accident prevented, a benefaction." In emphasizing the importance of early and proper treatment of wounds to prevent infection, the Wisconsin Com-

[1] For a system of credits and charges for superstandard risk, substandard conditions of safety in the plant, see several papers on the subject, or "merit" or "schedule rating" in the *Proceedings of the Casualty Actuarial and Statistical Society of America*, Vol. I (May, 1915); papers by Mr. Charles Hansen, A. W. Whitney, A. H. Mowbray, L. Senior, and the writer.

[2] "The Importance of Accident Prevention in the Solution of the Problem of Accident Compensation," *Transactions of the Commonwealth Club of California*, Vol. VII, No. 5, p. 505.

mission, nevertheless, concludes: "More important, however, than preventing infection after an accident has happened is the prevention of the accident itself."[1]

There is no intention to deny any of these statements. Their truth is so evident as to be almost bromidic. But, pragmatically speaking, the overemphasis of this formal truth may have, and perhaps has already had, some undesirable results. The theory of compensation legislation is based upon the frank recognition of the fact that it is impossible to prevent all accidents, and that, statistically, they are an inevitable accompaniment of economic activity. Viewing compensation as a sort of makeshift or apology is not conducive toward progressive comprehensive standards of compensation legislation. It is well to encourage the prevention of disease through measures of public hygiene, but the science of curative medicine must not be neglected at the same time.

Of course the campaign of safety prevention must depend upon the hope that a certain proportion of accidents is preventable, and surely in this country, with its notorious disregard of human life, the irreducible minimum has not yet been reached. Safety engineers are almost unanimous in their very sanguine expectations of reducing the accident frequency in this country. But, unfortunately, European experience does not furnish any evidence in support of extravagant hopes. Even in Germany, with its very efficient organization of employers' trade associations and thirty years of active safety work, the number of accidents reported has not shown any tendency toward a very rapid decline. In fact, the number of accidents reported has been rapidly increasing,[2] not only absolutely, but also relative to the number of persons employed. The writer is aware of the fact that the number of accidents recorded (or,

[1] *Bulletin of Industrial Commission of Wisconsin*, Vol. II, No. 11 (October 20, 1913), "Infections and Their Prevention."

[2] H. G. Villard, *Workmen's Accident Insurance in Germany*, pp. 21–22:

INDUSTRIAL ACCIDENTS IN GERMANY

Year	Number Reported	Per 1,000 Workmen
1891.....	162,674	31.94
1901.....	319,576	46.42
1911.....	520,229	52.83

perhaps more accurately, the number of accidents reported) is not a safe measure of the real accident frequency. Prejudiced use has frequently been made of these figures by the opponents of the German social insurance system to prove that "in spite of all preventive measures, the accident rate is higher than ever." The statistics of accident reports is so much influenced by the constant improvement in reporting that any deductions of that character are not very reliable. But the figures do seem to offer a "fair basis for the conclusion that no striking reduction in accidents has been accomplished by efforts at prevention in Germany."

The entire problem has been very carefully analyzed by Dr. H. J. Harris in his well-known study on "The Increase in Industrial Accidents"[1] on the basis of German, Austrian, and British data of compensated accidents. The comprehensive statistical material brought together by him indicates the absence of any striking results of accident prevention. The number of accidents resulting in death, permanent disability, or temporary disability of over 13 weeks' duration in Germany in 1897 was 8.07 per 1,000 full-time workers; in 1902, 9.19 per 1,000; and in 1908, 9.48 per 1,000. In Austria the number of accidents resulting in death, permanent disability, or temporary disability of over 4 weeks' duration was in 1890, 8.2; in 1900, 15.6; in 1907, 18.3 per 1,000 workers. While careful statistical data for Great Britain are lacking, a special departmental committee on accidents has come to the conclusion that "the accident risk for ten years, 1897–1907, has probably remained almost constant, and that any increase due to the greater use of machinery and greater pressure on the workmen has been counteracted by improved inspection and the greater care of the employers, resulting from the provisions of the Workmen's Compensation act."[2] These facts are not quoted to discourage or to discredit the work of factory inspection and the enthusiasm of the safety movement. It is difficult to imagine to what horrors the hazards of modern industry might rise if it had not been for the mitigating effects of safety engineering. But the conclusion is

[1] *Quarterly Publications of the American Statistical Association*, No. 97 (March, 1912), pp. 1–28.

[2] See Harris, *op. cit.*, p. 27.

inevitable that the compensation of industrial accidents is much more than an apology or a palliative, and is, of necessity, a permanent feature of economic relations. It is quite probable that in the United States the sensational safety campaign will appear to have had more tangible results, because the situation in industrial safety was so very much worse at the beginning of the compensation movement. The most complex and most hazardous machinery of production in this country has been introduced without the salutary influence of compensation legislation, which has existed in Germany for over thirty years. But, after all, the comparatively disappointing results of safety measures need not appear so difficult of explanation when it is remembered that only a small proportion of accidents is due to complex machinery, with which safety engineering is largely dealing. German accident statistics indicate that only 25 per cent are due to machinery, and curiously enough such scant American data as are at present available seem to show substantially the same proportion. And so long as the human machine is not a perfect machine, workmen will fall down ladders or into shafts, drop heavy objects, overstrain themselves, let chips fly, and cause industrial injuries to themselves or to fellow-workers.

Dr. Harris' study establishes, however, other important conclusions. During the short period of twelve years, 1897–1908, the proportion of fatal accidents per 100,000 full-time workers in Germany decreased from 82 to 76; the proportion of cases of total permanent disability, from 12 to 7; the proportion of cases of permanent but partial disability, from 411 to 370. Adding these three categories, which constitute the serious accidents, their relative frequency has decreased from 505 to 453 per 100,000 full-time workers. Similar tendencies may be observed in Austria and Great Britain. Dr. Harris summarizes these tendencies in the following succinct statements: "In Germany, Austria, and Great Britain the serious accidents—namely, those causing death or permanent disablement—show a tendency to decrease. . . . . The progress in the movement for reducing the risk of industry has resulted in distinctly reducing the risk of death and of permanent disablement, but has not yet diminished the risk of temporary disablement."[1]

[1] *Ibid.*, p. 27.

These interesting conclusions have been widely reprinted and are almost universally accepted. But just exactly what do they mean? How can safety engineering be specifically directed at causes of accidents resulting in death and permanent disability without affecting the many more numerous accidents resulting in temporary disability only? Outside of drowning, explosions, etc., all kinds of injuries result from each and every cause. It seems to us very much more likely that we are dealing here with the effects of preventive (as well as curative) medicine, rather than those of safety engineering. It is true that medicine and surgery do not step in until after the accident has occurred, but it is preventive, nevertheless, because the full extent of injury depends just upon the character of the medical interference. It is, therefore, with perfect propriety that Dr. Paul Kaufmann, president of the German Imperial Insurance Office, devotes to the various problems of medical care more than half of his study of "The preventive Influences of the German Social Insurance System."[1] In sharp contrast to the usual American disregard of the medical problem or the exaggerated fear of its expected cost, the German expert emphasizes the necessity of thorough medical aid in the following strong statements:

> In so far as it proves impossible to prevent industrial accidents, it is necessary to take care that their results be minimized as far as possible. Above all it is important that efficient first aid be rendered to the injured. Very often the fate of the injured depends upon the first dressing and his first removal to a safe place. These often prove decisive, not only for his survival, but also for the preservation of his health, his will power, and capacity for productive labor, and hence for his value to the welfare of the country.[2]

But first aid does not meet the entire problem. "When the injured person's life has been saved and his immediate needs have been taken care of, an effective course of treatment must be undertaken as promptly as possible for the purpose of re-establishing his earning capacity."[3]

The significant note of these statements is that they go beyond the mere quantitative measurement of "reasonable medical aid," a purely negative attitude assumed by even the best American

[1] *Schadenverhütendes Werken in der deutschen Arbeiterversicherung*, von Dr. jur. u. med. Paul Kaufmann, Berlin, 1913; see pp. 13–21, 47–57, 57–76, 85–94, and 94–118.

[2] *Ibid.*, p. 47.

[3] *Ibid.*, p. 57.

compensation laws, and emphasize its qualitative character, to be kept up to the necessary standard of efficiency by constructive legislation and practice through thorough organization, as economical as possible, but as costly as necessary.

Some appreciation of the importance of such preventive constructive measures and their financial value are shown by the American compensation insurance business, though not by American compensation legislation. Mr. Hansen's system of schedule rating, which is almost universally used in workmen's compensation insurance in this country,[1] provides for a "credit" or deduction of premiums by 1 per cent "where efficient means for first aid to the injured is furnished by the employer on the premises, such means consisting of first-aid medical cases, splints, stretchers, etc., and the same kept in an easily accessible place or places, with persons properly instructed to apply same until the arrival of expert medical help;" "where, in addition to the foregoing, a nurse and dispensary is maintained on the premises during all working hours, a credit of 2 per cent of base rate" is provided for.

It is impossible, with the present paucity of statistical material, to ascertain how near these allowed credits are to the actual money value of properly organized first aid. Personally, the writer thinks that, taking the entire field of safety engineering, the proper organization of first aid is of much greater importance than guards upon some dangerous machines, and that on the whole more damage is done through infection of trivial wounds than, say, explosion of boilers. But the absolute justice of the premium charge and discount is a matter of very much smaller importance than the stimulus given to the organization of medical aid by these discounts. As to the positive effects of these discounts, no information, unfortunately, is available. It does not seem likely that a saving of 1 or 2 per cent on the cost of compensation insurance (which altogether may amount to a very small percentage of the pay-roll—in manufacture, seldom over 3 per cent, and often less than 1 per cent, of the pay-roll) would to any extent influence the factory rules or customs of an establishment.

[1] Carl M. Hansen, *Universal Analytic Schedule for the Measuring of Relative Work Accident Hazards in Manufacturing Industries*, April, 1914, p. 20.

The tendency of this effort, however, is characteristic. Upon the same tendency the whole system of schedule, or merit, rating is based. It is the old, hackneyed, and naïve theory of the abstract "economic man." Man acts largely from economic motives. Hence, if a certain mode of action appears desirable, it is only necessary to discover an economic motive for such action and furnish that motive. The cost of compensation insurance is an economic burden. The desire to relieve it is a healthy economic motive. If discounts from this cost are offered for improvement of industrial safety and hygiene—presto—all has been done to accomplish such improvement, and no further efforts are necessary. The representatives of the Workmen's Compensation Service Bureau, through whose efforts merit rating has been introduced, are fond of stating boastfully that they have "commercialized safety because that is the surest way to realize it." What is forgotten in this enthusiasm for the wisdom and efficiency of the economic man is his inertia, his failure to move unless the economic reward promised is sufficiently large. Moreover, shall we be ready to forego safety and hygiene, unless they prove to be sources of profit to the individual employer? Social standards must be based upon a broader principle than that.

In Germany, for instance, the measures for efficient medical aid, though perhaps backed up by the same economic motive, are, nevertheless, carried through in compliance with a well-defined social policy. The insurance carriers issue definite regulations, whose sanction is compulsory as far as individual employers are concerned. A detailed description of these measures may be found in Dr. Kaufmann's study, quoted above. The possession of materials for dressings is compulsory, prizes are offered for the saving of injured persons, first-aid stations are organized under direct contract of the insurance carriers, regulations are issued requiring workmen to stop work and apply for dressings in case of injuries ever so slight. In large establishments the presence of persons competent to give first aid is required, and courses of instructions in first aid are organized. Co-operation between the insurance carriers and the Red Cross has been accomplished in many localities since 1910. After an understanding reached on

April 20, 1910, between the Association of the "Berufsgenossenschaften" and the German Red Cross, the latter furnishing the organization of courses in first aid, and the employers assuming to furnish the personnel of the classes of instruction, within the brief period from January, 1911, to September, 1912, 3,370 wageworkers graduated from such courses.

This and similar measures refer mainly to first aid. But subsequent treatment was not neglected. The organization of compensation in Germany, which leaves the first 13 weeks of treatment to the sick-insurance organizations, offered some difficulties, but these were overcome. Even as far as this preliminary period is concerned, medical aid is organized and in many larger cities reaches a high degree of efficiency. But it is recognized that the insurance carriers, who must take over the serious accidents at the expiration of 13 weeks, have a deep concern in all efforts for restitution of working capacity. The possibility of legal limit upon the amount of medical aid is not even considered. Instead, the "Employers Associations" are authorized to step in for the purpose of granting the best possible surgical aid, even during the waiting period. A circular of the Imperial Insurance Office, issued on December 14, 1911,[1] announces that "prompt aid is more important than long deliberation. Money benefits to the injured do not constitute the highest duty of the trade associations. More important it is to establish their capacity for productive effort and through it the joy of working as promptly and as completely as possible."

Hospitals and sanatoria with expert medical staffs of the highest efficiency were established by many trade associations where the facilities of the sick-insurance associations were insufficient. The cost of medical aid during the waiting period of 13 weeks has increased from 478,552 M. ($113,895) in 1896 to 1,228,368 M. ($292,355) in 1911.[2] The total cost of medical and hospital treatment and appliances granted after the expiration of the 13 weeks' period (at which time, under American acts, with few exceptions, no more medical aid is due) to the German trade associations in twenty-five years (1885–1911) was 129,501,925 M. ($30,721,458).[3]

[1] Kaufmann, *op. cit.*, p. 63. [2] *Ibid.*, p. 68. [3] *Ibid.*, p. 69.

General hospitals, special surgical and orthopedic hospitals, and sanatoria for nervous diseases have been constructed and are being supported by the trade associations. How thoroughly these institutions are equipped is well illustrated by the biting remark of Dr. F. Friedensburg in his severe arraignment of the German insurance system, so well known to the American student:[1] "There is no more need for such buildings to be homes of luxury than there is for the business offices of the insurance carriers to be palaces." If it is remembered that the trade associations are managed entirely by employers and at their own expense, it is scarcely probable that unnecessary comforts have been provided, and even Dr. Friedensburg has been forced to admit that: "No one can object in the least to the fact that these hospitals were equipped in the most appropriate and practical manner, and that without regard to expense the most modern achievements of skill, architecture, industry, and medical science were installed; nor can anyone cavil at the lavishing of the most whole-hearted care for the welfare of the inmates." And an expert German surgeon announces the basic principle of this entire policy in the succinct statement: "Time and cost are no more matters of decisive importance in the treatment of injured. Only the best is good enough for the purpose of achieving their rehabilitation."[2]

And the results do not fail to justify these methods. It was stated, e.g., at the International Medical Congress for Treatment of Industrial Injuries at Dusseldorf in 1912, that the average duration of disability from fracture of a leg under treatment by the trade association has been reduced to less than 4 months, as against 10 months when the association did not take charge of the case until the expiration of the waiting period.[3]

Even broader statistical evidence of the efficiency of the German system exists. Much has been written and said in this country concerning the gradual rehabilitation of persons seriously injured, from the resulting degree of disability; and our very crude way of compensating the gravest injuries by a schedule of specific benefits

[1] See Friedensburg, *op. cit.*, p. 25.

[2] Dr. Rieder, quoted by Dr. Kaufmann, *op. cit.*, p. 70.

[3] Kaufmann, *op. cit.*, p. 68.

is based upon that presumption. But in case even of grave injuries, short of dismemberment (i.e., loss of limb or part of limb) their permanent character remains altogether unrecognized.[1] When even the New York State Insurance Fund is ready to announce that out of 1,800 accidents there was not a single case of permanent-partial-disability-not-dismemberment (i.e., not a single case of

TABLE I

RESULTS OF 65,205 INDUSTRIAL ACCIDENTS OCCURRING IN 1904 AND CAUSING DISABILITY OF MORE THAN 13 WEEKS' DURATION*

Condition	Percentage Distribution of the Persons Injured, According to Their Observed Condition in Successive Years			
	1905	1906	1907	1908
Death	7.63	7.81	7.96	8.06
Total permanent disability	0.93	0.80	0.78	0.81
Partial permanent disability with loss of earning power during the year:				
Under 25 per cent	25.90	25.38	24.60	24.17
25–50 per cent	12.74	10.97	10.07	9.27
50–75 per cent	3.80	3.48	3.18	3.01
75–100 per cent	1.83	1.29	1.15	0.95
	44.27	41.12	39.00	37.40
Temporary disability with loss of earning power during the year:				
Under 25 per cent	19.67	14.14	10.59	8.15
25–50 per cent	3.93	2.14	1.39	0.98
50–75 per cent	0.50	0.23	0.16	0.12
75–100 per cent	0.48	0.17	0.15	0.11
	25.58	16.68	12.29	9.36
No loss of earning power	22.59	33.59	39.97	44.37
	100.00	100.00	100.00	100.00

* Data from *Bulletin of the* (U.S.) *Bureau of Labor*, January, 1911, p. 70.

stiffening, or shortening, or loose joint, or false union, or paralysis of muscle, or weakening of tendon, etc.) no testing of the rehabilitation theory will be possible for a long time.

In Germany, however, these cases of partial but long-time reduction of earning capacity are readily recognized, and active efforts toward accelerating recovery are made. In Table I may

[1] See discussion concerning this in I. M. Rubinow's *Standard Accident Table*, 1915, pp. 21–26.

be found an indication of the results accomplished, based upon a detailed study of 65,205 accidents of over 13 weeks' duration occurring in 1904 and their results toward the end of four years in succession.

Notice the persistent increase in the number of complete recoveries, the reduction in the number of cases of permanent partial, and even permanent total, disabilities, indicating the splendid results of systematic and persistent treatment. Still more significant is a comparison of similar analyses of accidents for 1896 and 1904, indicating a substantial improvement in these results.

TABLE II

PERCENTAGE OF CASES OF COMPLETE RECOVERY FROM INDUSTRIAL ACCIDENTS IN 1896 AND 1904*

Complete Recovery	Year in Which Accident Occurred	
	1896	1904
At the end of the year of the accident	**20.82**	**22.59**
During the following year	7.55	11.00
At the end of the following year	**28.37**	**33.59**
During the second following year	4.31	6.38
At the end of the second following year	**32.68**	**39.47**
During the third following year	2.41	4.40
At the end of the third following year	**35.09**	**44.37**

*Data from *Bulletin of the* (U.S.) *Bureau of Labor*, January, 1911, p. 70.

It is true that the details of medical aid in Germany are closely interwoven with the entire organization of compensation insurance, and cannot perhaps be blindly imitated in this or in any other country. But the underlying principle, the appreciation of the great social value of thorough and expert medical aid, is one of universal application. It is, unfortunately, this appreciation which in this country is yet largely lacking.

We have shown this to be so, as far as most acts and also the earlier private studies and official reports are concerned. But even in more recent efforts to establish standards of compensation the same fault may be found. Mr. Magnus W. Alexander, an expert in industrial relations, who was largely responsible for the Massachusetts act and who has been extensively consulted with regard to

compensation legislation in other states, admits that "the importance of prompt and adequate medical attention to the injured can hardly be overestimated. The employee should receive immediate and skilful medical care to ameliorate his suffering and to restore him quickly and without permanent impairment to complete usefulness."[1]

Nevertheless, his "standards" in regard to medical aid read as follows: "The employer should be obliged to furnish, and injured employee to accept, adequate medical care during first 30 days." "Employer should be permitted to continue adequate medical care and injured employee should be obliged to accept it."

The *Draft of a Uniform Workingman's Compensation Act*, prepared by a committee at the Conference of Commissioners of Uniform State Laws in 1913, recommends (sec. 9) reasonable services for 14 days only.[2]

The National Civic Federation in its *Tentative Draft*, published as late as December, 1914, recommends the rather indefinite standard of "all medical and surgical aid and assistance that may be reasonably required, for a reasonable period of time,"[3] but in view of the variety of existing standards, as demonstrated in the table on page 588, this obscure and indefinite announcement does not carry things very much farther.

Even the American Association for Labor Legislation, always in the advance guard of progressive labor legislation, in its "Standard of Workmen's Compensation Laws" asks for "necessary medical, surgical, and hospital services and supplies for a reasonable period (to be determined by the Accident Board)," without specifically mentioning the entire period of disability, and while the Accident Board is to be with power "to establish a schedule of physicians, and hospital charges and to control all charges," so as to protect the employer from excessive charges, nothing is said about any constructive measures to guarantee to the injured employee service that is thoroughly competent. The so-called Kern-McGillicuddy

[1] M. A. Alexander, *What Should Be the Principal Provisions of a Workmen's Compensation Act?* 1915.

[2] Conference of Commissioners of Uniform State Laws, 1913.

[3] *Tentative Draft*, etc., p. 4.

act for compensation of the employees of the U. S. Government, which was drawn by the American Association for Labor Legislation and comes perhaps nearer than any other act to being a model compensation act, grants "medical aid immediately after an injury" and "for a *reasonable* time thereafter," but makes the valuable suggestion that the U. S. medical officers and hospitals be utilized for that purpose, which is perhaps the only legislative suggestion of an organized medical service.

It is but seldom that in American compensation literature, official or otherwise, as clear an appreciation of the importance of medical service is found as that in the first report of the California Industrial Accident Board (now Commission): "The first and best compensation that can be afforded to an injured workman is to place at his disposal the *best* skill and care of the medical and surgical science of his time, for the purpose of restoring him, as nearly as possible, to the physical condition he was in before he was injured.[1]

How much this strong tendency to limit the efficiency of medical and surgical aid depends upon the fear of excessive costs and the desire to protect the employers against these excessive charges has already been explained. But it is not amiss to remember that accident compensation has not been established primarily for the purpose of protecting the employer and of making things cheaper. The direct object of legislation is the injured employee and those dependent upon him. Indirectly the purpose is a social one—to prevent or at least to minimize the large amount of social waste which at present accompanies our processes of production. If the subject of curing the injured employee and of re-establishing, as far as possible, his earning capacity is sufficiently important to place a considerable burden upon industry, surely inadequate standards of medical aid should not stand in its way. An enormous amount of very expert, very specialized, medical service is required to accomplish this result; a large proportion of this treatment must be of the institutional kind. Consideration of economy and still more consideration of efficiency require that this service should be furnished in a systematic way, not in the haphazard manner in which it is done today, dependent upon the intelligence of the work-

[1] *California Industrial Accident Board Report*, 1913, p. 13.

man or the honesty or generosity of the employer or insurance company.

The Ohio Industrial Commission's study of medical aid, frequently quoted here, sees that difference, but only as it affects the rate of pay for medical aid, and not its organization. But the German students of, and workers in, the field of social insurance fully recognize the difference between private medical practice and medical aid in social insurance.[1] As the well-known German expert in social insurance, Dr. Klein, has well stated: "Medical aid in social insurance differs from ordinary medical treatment in one very important feature. Under social insurance medical treatment aims at restitution of the useful activity of the body, if its earning capacity is not always covered by simple anatomical healing."[2]

The entire problem of medical aid in all branches of social insurance (accident compensation as well as sickness and invalidity insurance), has been summed up by Dr. Klein in his report to the International Conference on Social Insurance at Dresden, September, 1911, in a series of theses, which, briefly stated (and disregarding those dealing with special German conditions), are as follows:

1. Medical treatment, next to prevention of injury, is the most important feature of social insurance. Compensation is only of secondary importance.

2. Under social insurance medical treatment aims at restitution of the earning capacity, which is not always covered by mere anatomical healing.

3. For successful treatment the co-operation of the injured, the physician, and the insurance carriers is necessary.

4. In their own interest the insurance carriers must place the object of the best possible mode of treatment above the considerations of economy and limitation in time.

5. The earlier and more efficiently medical treatment is undertaken, the better results does it promise. Physicians must be selected with care, and specialists employed whenever necessary. Modern methods of diagnosis must be utilized, and institutional care provided.

[1] See address by Dr. Klein, president of the Senate of the German Imperial Insurance Office, at the second session of the International Conference on Social Insurance, at Dresden, September 6, 1911; *Bulletin des Assurances Sociales*, No. 2, 1912 Supplement, p. 70.

[2] Second International Conference of Social Insurance, at Dresden (September, 1911), p. 70.

6. Instruction of the insured [workers] in hygiene, through lectures and distribution of literature, is very important.

7. The extension of the accident-insurance system to occupational diseases (provided for in the New German Workmen's Insurance Code of 1911) is to be welcomed.[1]

The principle announced in the third of these theses—that co-operation of the injured is necessary—is not one which might be self-explanatory. Our entire compensation legislation is treated as an obligation of the employer to the injured employee. If the social character of this legislation is recognized, if the restitution of the earning capacity and the prevention of destitution and pauperism be recognized for what it is, as a social rather than individual need, then it inevitably follows that compensation places certain obligations upon the beneficiary as well. This chief obligation is to co-operate in all efforts toward the earliest possible restitution of the social loss sustained, and his first duty therefore is to seek and to accept all necessary medical and surgical aid, unless it be that his life is jeopardized thereby.

As yet, however, very few compensation acts recognize this obligation. In most acts the possibility of the injured person's neglecting, avoiding, or even positively rejecting medical aid is not even contemplated. Of those that do, most seem to be concerned only in protecting the employer against subsequent charges for such medical aid. The acts of Connecticut, Illinois, Louisiana, Montana, New Jersey, and Pennsylvania provide that, if the injured employee refuses medical aid offered by the employer, the employer shall not be liable for its cost. As to whether the injured person is going to receive efficient medical aid in some other way, the acts show not the slightest concern. As far as we were able to discover, only three acts place the obligation of receiving medical aid upon the injured.

The Nebraska act provides that "where the injured employee refuses or neglects to avail himself of such medical or surgical treatment, the employer shall not be liable for any aggravation of such injury to such neglect or refusal" (sec. 20).

[1] *Conférence Internationale des Assurances Sociales*, Dresden, September 15–16, 1911, pp. 81–85.

The Indiana act goes even farther and specifically commands that (sec. 25) "The employer shall furnish, and the employee shall accept . . . . an attending physician during the 30 days after an injury . . . . and during the whole or any part of the remainder of the disability . . . . the employer *may* continue to furnish . . . . and the employee *shall* accept the physician" (italics are ours). It is furthermore provided that "the refusal of the employee to accept such service when provided by the employer shall bar said employee from further compensation until such refusal ceases, and no compensation shall at any time be payable for the period of suspension," unless the Industrial Board orders otherwise.

No provision seems to be made for the possibility that the employer's physician may be utterly incompetent, and his advice refused on such ground.

The Illinois act goes farther in extending the obligation beyond the aid furnished by the employer's physician: "If any employee shall persist in unsanitary or injurious practices which tend either to imperil or retard his recovery, or shall refuse to submit to such medical or surgical treatment as is reasonably essential to promote his recovery, the Board may, in its discretion, reduce or suspend the compensation of any such injured employee" (sec. 19, Paragraph D).

In its first report, after only one year's experience, the Massachusetts Industrial Accident Board felt itself constrained to ask the legislature for similar authority,[1] but this was not granted, probably out of fear of antagonizing organized labor. Similar action has been taken, however, by several of the industrial accident boards and commissions.

In Connecticut an injured employee was advised to go to a physician, but refused. Subsequently the wound became infected; compensation was disallowed (*Fred. Pierson* v. *Sterling Piano Co. and Aetna Life Insurance Co.*, Conn., July 7, 1914).

In a case before the Wisconsin Commission the injured employee refused to go to a hospital as directed, but applied home treatment. A disability of over four weeks resulted. Physicians claimed that with proper medical aid the disability would not have lasted over two weeks. An opinion like this is difficult to prove, but the

[1] *First Annual Report of the Massachusetts Industrial Accident Board*, p. 46.

Commission refused to pay compensation beyond the two weeks (Wisconsin—*Fritz Voege* v. *Raulf Co.*, Wis., August 15, 1913).

Similar supra-legal action was also forced upon the United States government in its administration of the earliest American compensation act—the law of May 30, 1908, applying to the employees of the United States government. The serious results following neglect to obtain medical aid after the injury were so evident that (although the act made no provision for medical aid whatsoever) the writer, connected with the administration of that act during the first three years, urged and succeeded in having adopted an official regulation to that effect, reading as follows: "It shall be the duty of each injured employee intending to take advantage of the act, to obtain necessary medical and surgical treatment and to comply with all reasonable orders for treatment and conduct which the attending physician may give."[1]

There was grave doubt at the time in the mind of the solicitor of the Department of Commerce and Labor, whether, in absence of any legal sanction, this rule had any binding force. No penalty for non-compliance was provided.

Of the various "standards" published in this country, only those of Mr. M. W. Alexander emphasize this obligation to accept as well as to give medical aid. Mr. Alexander's standards are practically those of the Indiana act, which he is understood to have helped to shape.[2]

The tendency is undoubtedly a salutary one, but its effectiveness is slight unless it is backed up by a thorough organization which will guarantee the necessary medical aid of highest quality.

These conditions may appear to many hypercritical, fanciful, and wholly unnecessary. The anxiety of the injured employee and his nearest of kin is sufficient, it will be said, to provide ready appeal to some physicians. That would be quite true of college professors or statisticians. But workingmen necessarily grow careless of minor injuries; many of them are foreign born, and have an unreasonable fear of the hospitals; others, American born, have

[1] Rule 5. See *Bulletin of United States Bureau of Labor Statistics, No. 155*, p. 322.

[2] See his pamphlet, *What Should be the Principal Provisions of a Workmen's Compensation Act*, February, 1915, Standards 14, 15, and 16.

acquired a very dangerous confidence in patent nostra; and, finally, the popularity of such fads as "physical culture" naturopathy, starvation cure, osteopathy, mind cure, and Christian Science, in some communities (as, for instance, Boston, or Southern California) cannot be disregarded. If, to quote an illustration from the writer's experience, a faithful Christian Scientist refuses to accept any aid in case of a badly wrenched ankle, and is disabled for months, when one thorough bandage might have prevented any disability, what are the rights and duties of the various parties interested?

To sum up, the entire problem of medical aid to victims of industrial accidents is still awaiting its solution in this country, and this one problem emphasizes how much remains to be done, undone, and done over in our compensation legislation. Sufficient attention and thought has not been given to this matter. A very erroneous sense of economy has placed limitations upon the extent of medical aid which is producing injustice to the injured and harm to society without really saving anything to the employer. Evidence is not lacking of a gradual realization of these facts in the minds of those concerned with the practice of compensation. But the abolition of these limits is not sufficient to produce the desirable social results. It must be followed by careful study, by an educational campaign among employers as well as employees, and above all by an organized social effort to improve and at the same time to cheapen the administration of medical service, and only then will the appalling waste of human energy and well-being through accidental injuries be brought down to the irreducible minimum.

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SUPPLEMENTARY NOTE

LEGISLATION OF 1917

This study was completed before the legislative work of many states during the spring of the current year added a substantial amount of new legislation and changed many of the existing provisions. It is still impossible to give an accurate and complete

account of this recent legislation. But the most important results may be briefly summarized as follows:

New acts.—New compensation acts were passed in five states, with the following medical provisions:

	Maximum Period	Maximum Amount
Delaware	14 days	$25
Idaho	Reasonable (no limit)	Reasonable (no limit)
New Mexico	3 weeks	$ 50
South Dakota	4 weeks	$100
Utah	No limit	$200

Increases.—

Iowa: Time limit increased from 2 to 4 weeks.

Texas: Time limit increased from 1 to 2 weeks.

Vermont: Money limit increased from $75 to $100.

Medical benefits introduced where there were none before.—

	Maximum Period	Maximum Amount
Kansas	50 days	$150
Washington	No limit	No limit

(The employer is to pay half the cost of medical attendance which is organized through a separate fund.)

Other changes.—In Texas medical attendance may be extended two additional weeks by permission of the Industrial Accident Board.

In Nevada the permission to the employer to charge his employees $1.00 per month for medical attendance has been modified, so that the charge subject to the same maximum of $1.00 must not exceed one-half the actual cost.

Free choice.—In Massachusetts, Rhode Island, and Washington the injured employee is given the right to choose his own physician.

As can be seen from this brief and incomplete review, the new provisions have (with one exception) followed the old standards and principles. But the constant tendency to extend provisions for medical aid is very significant indeed. It is a frank recognition

of the shortcomings of the other standards and furnishes additional evidence for thorough reconsideration of the benefit provisions of all our compensation legislation.

The comparatively new tendency is the granting of free choice of physician. The moving power behind this change was not only the preference of the worker for a physician of his own choice, but the agitation within the medical profession for a "fairer deal," a protest against the concentration of surgical work within the hands of a few physicians. What effect this will have either upon the quality of the medical aid or upon the cost of it, it is at present impossible to prophesy. Much depends upon the development of methods of administrative control.

I. M. R.